

ARRANGEMENT FOR MANAGING TRANSMITTED  
PACKETS REQUIRING ACKNOWLEDGEMENT IN A  
HOST CHANNEL ADAPTER

ABSTRACT OF THE DISCLOSURE

A host channel adapter configured for outputting packets, according to a service protocol requiring acknowledgement messages within a prescribed time interval following transmission, utilizes a retransmission table for storing entries identifying the packets awaiting respective acknowledgement messages during the respective prescribed time intervals. A retransmission manager is configured for updating the retransmission table after each access cycle, defined as a prescribed number of clock cycles. The retransmission manager also identifies a number of transmitted packets within the corresponding access cycle within a selected initial entry for the access cycle. An acknowledgement manager in the receive portion of the host channel adapter resets to zero an acknowledgement waiting bit in a selected entry in response to an acknowledgment message identifying the corresponding packet. If the retransmission manager determines after a prescribed retransmission time that the selected initial entry for the access cycle does not reset an acknowledgment waiting bit, the entries identifying the transmitted packets within the corresponding access cycle are transferred to a transmit queue for retransmission.